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10/526,480

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Maria B Winnicka

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EXAMINER

KESSLER, CHRISTOPHER S

ART UNIT

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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,480	Applicant(s) WINNICKA, MARIA B	
	Examiner CHRISTOPHER KESSLER	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Responsive to the amendment filed 7 March 2008, no amendments are made to the claims. Claims 1-17 are currently under examination.

Status of Previous Rejections

2. Responsive to the amendment filed 7 March 2008, the rejections based on Eck are withdrawn. New grounds of rejection are presented, which have accordingly made non-final.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "near-finished" in claim 1 is a relative term which renders the claim indefinite. The term "near-finished" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In the instant case, there is no indication as to what constitutes a near-finished form.

Each of claims 2-10 is dependent on claim 1 and is therefore also indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11-13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,102,474 issued to Eck (hereinafter “Eck ‘474”).

Regarding claim 11, Eck teaches the invention as claimed. Eck teaches that a molybdenum alloy is mixed with 1.2% La(OH)₃ powder and pressed to form a sintered body (see Example 2). The composition of Eck ‘474 falls within the instantly claimed range, anticipating said range. Applicant is further directed to MPEP 2131.03. Eck ‘474 teaches that the sintered body is mechanically worked, including a step of working the sintered body from a size of 2.2 to 2 mm (see Example 2). The deformation of this step of Eck ‘474 meets the claimed limitation of “mechanically deforming the sintered body to a finished form” because it is the last mechanical processing step. Applicant is further directed to MPEP 2111.03. The degree of deformation of Eck ‘474 falls within the range as claimed, anticipating said range. Applicant is further directed to MPEP 2131.03. Eck ‘474 further teaches that the sintered body in its finished form is subjected to a final recrystallization annealing (see Example 2).

Regarding claim 12, Eck '474 teaches wherein the mechanically deforming step reduces the sheet from 2.2 to 2 mm (see Example 2), said degree of deformation meeting the limitation of "about 12%."

Regarding claim 13, Eck '474 teaches wherein the final recrystallization takes place at 1900° C (see Example 2).

Regarding claim 16, Eck '474 teaches wherein the mechanically deforming step reduces the sheet from 2.2 to 2 mm (see Example 2), said degree of deformation meeting the limitation of "about 12%."

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-10, 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,102,474 (hereinafter "Eck '474").

Regarding claim 1, Eck '474 teaches the invention substantially as claimed. Eck '474 teaches that a molybdenum alloy is sintered to form a sintered body (see cols. 1-2). Eck '474 teaches that the sintered body is then worked to reduce thickness and annealed without recrystallization (see cols. 2-3). Eck '474 teaches that the worked and

Art Unit: 1793

annealed body is then recrystallized (see cols. 2-3). Eck '474 teaches that this process may then be repeated and generates a further improved microstructure (see col. 3 and Example 1). Eck '474 teaches that subsequent working steps are limited to the range of 3% to 30% (see cols. 2-3). Thus the range of deformation taught by Eck '474 overlaps the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to have selected an amount of deformation prior to the final recrystallization within the range as claimed, because Eck teaches that each step should be 3-30% deformation.

Eck '474 further teaches that it is known in the art to use molybdenum-lanthana alloys, such as an alloy of 98.8% Mo with 1.2% $\text{La}(\text{OH})_3$ (see Example 2), said amount falling within the range as claimed and establishing a prima facie case of obviousness.

Regarding claim 2, the range of deformation taught by Eck '474 overlaps the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to have selected an amount of deformation prior to the final recrystallization within the range as claimed, because Eck teaches that each step should be 3-30% deformation.

Regarding claim 3, Eck teaches wherein the recrystallization temperature is variable dependent on the type of alloy used and the amount of deformation (see col. 1). Thus, one of ordinary skill in the art would have optimized the temperature of recrystallization in order to suit the composition and thermomechanical history of the alloy.

Eck further teaches wherein a recrystallization temperature of 1900° C is used (see Example 1).

Regarding claim 4, Eck '474 teaches that the recrystallization temperature is variable dependent on the type of alloy used and the amount of deformation (see col. 1). Thus, one of ordinary skill in the art would have optimized the temperature of recrystallization in order to suit the composition and thermomechanical history of the alloy.

Regarding claim 5, Eck '474 does not teach an example within the range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 6, Eck teaches wherein the sintered body is heated during the mechanical working step (see cols. 2-3).

Regarding claim 7, Eck '474 does not teach an example within the range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a

composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 8, Eck '474 teaches the invention substantially as claimed. Eck '474 teaches that a molybdenum alloy is sintered to form a sintered body (see cols. 1-2). Eck '474 teaches that the sintered body is then worked to reduce thickness and annealed without recrystallization (see cols. 2-3). Eck '474 teaches that the worked and annealed body is then recrystallized (see cols. 2-3). Eck '474 teaches that this process may then be repeated and generates a further improved microstructure (see col. 3 and Example 1). Eck '474 teaches that subsequent working steps are limited to the range of 3% to 30% (see cols. 2-3). Thus the range of deformation taught by Eck '474 overlaps the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to have selected an amount of deformation prior to the final recrystallization within the range as claimed, because Eck teaches that each step should be 3-30% deformation.

Eck '474 does not teach an example within the range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Eck teaches wherein the recrystallization temperature is variable dependent on the type of alloy used and the amount of deformation (see col. 1). Thus, one of ordinary skill in the art would have optimized the temperature of recrystallization in order to suit the composition and thermomechanical history of the alloy.

Regarding claim 9, the range of deformation taught by Eck '474 overlaps the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to have selected an amount of deformation prior to the final recrystallization within the range as claimed, because Eck teaches that each step should be 3-30% deformation.

Regarding claim 10, Eck '474 does not teach an example within the range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claims 14, 15 and 17, Eck '474 is applied to the claims as stated above in the rejection of claims 11-13 and 16.

Regarding claim 14, Eck '474 does not teach an example within the compositional range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of

Art Unit: 1793

obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 15, Eck '474 does not teach an example within the compositional range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 17, Eck '474 does not teach an example within the compositional range as claimed. However, Eck '474 teaches that it is known in the art to use a molybdenum alloy containing 0.2-3% by weight of an oxide (see cols. 1-2), said range overlapping the instantly claimed range, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have used a composition within the range as claimed, because Eck '474 teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Response to Arguments

Art Unit: 1793

9. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER KESSLER whose telephone number is (571)272-6510. The examiner can normally be reached on Mon-Fri, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

csk

Application/Control Number: 10/526,480
Art Unit: 1793

Page 11